

P4  
Amended.

code format. Additionally, although a wide range of microcontrollers can be used, the particular microcontroller selected for the preferred embodiment has excess capacity for additional functions which can be added if desired. For example, the microcontroller selected is capable, with the appropriate additional externals, of displaying compass directions, diagrammatically indicated at 64 in FIG. 5.

IN THE CLAIMS

↓ Please cancel claims 30, 36 and 37.

Please amend the following claims as indicated:

- P5
1. (Twice Amended) A firearm monitoring device for use with a firearm, said firearm being susceptible to recoil in a first direction when discharged, comprising:
- a) an inertia switch [sensor] configured to generate at least one first signal in response to substantially each discharge of said firearm, said inertia switch [sensor] comprising a moveable mass resiliently biased in a direction substantially opposite said first direction; and
  - b) an electrical circuit configured to receive said at least one first signal generated by said inertia switch [sensor] and generate a second signal indicative of the number of said firearm discharges.

13. (Amended) The device of claim 1, wherein the inertia switch [sensor] comprises a substantially cylindrical housing and a spring.

P6  
Cont.

14. (Amended) A firearm in combination with a monitoring device, said firearm being susceptible to recoil in a first direction when discharged, said monitoring device comprising:

- a) an inertia switch [sensor] configured to generate at least one first signal in response to substantially each discharge of said firearm, said inertia switch [sensor] comprising a moveable mass resiliently biased in a direction substantially opposite said first direction; and

- 106  
Contd.
- b) an electrical circuit configured to receive said at least one first signal generated by said inertia switch [sensor] and generate a second signal indicative of the number of said firearm discharges.
- 1/E

28. A device for counting impulses, each of said impulses being in a first direction, said device comprising:

- 107
- a) an inertia [sensor] switch configured to generate at least one first signal in response to substantially each impulse, said inertia [sensor] switch comprising a moveable mass resiliently biased in a direction substantially opposite said first direction; and
- b) an electrical circuit configured to receive said at least one first signal generated by said inertia [sensor] switch and generate a second signal indicative of the number of said impulses.

29. (Amended) A device for counting impulses, each of said impulses being in a first direction, said device comprising:

- a) an inertia sensor configured to generate at least one first signal in response to substantially each impulse; and
- b) an electrical circuit configured to receive said at least one first signal generated by said inertia sensor and generate a second signal indicative of the number of said impulses, said electrical circuit being configured to ignore any signals generated by said inertia sensor within a predetermined time period following the generation of an initial one of a series of said first signals.

Please add the following new claims:

42. A firearm monitoring device for use with a firearm, said firearm being susceptible to recoil in a first direction when discharged, comprising:

- 108  
Contd.
- a) an inertia sensor configured to generate at least one first signal in response to substantially each discharge of said firearm, said inertia sensor comprising a moveable mass resiliently biased in a direction substantially opposite said first direction; and

- b) an electrical circuit configured to receive said at least one first signal generated by said inertia sensor and generate a second signal indicative of the number of said firearm discharges.
43. The device of claim 42 comprising display means for receiving said second signal and generating a display in response to said second signal.
44. The device of claim 43 wherein said display is an audible display.
45. The device of claim 43, wherein said display is positioned such that it is visible to a user of the firearm while firing in a direction away from the user.
46. The device of claim 42, wherein the movement of said mass is generally confined to movement along a straight line.
47. The device of claim 46, wherein said firearm includes a bore through which a round of ammunition is discharged, said straight line being generally parallel to said bore.
48. The device of claim 42, wherein said electrical circuit is configured to count down by one in response to each said firearm discharge, beginning from a predetermined number.
49. The device of claim 48, wherein said predetermined number can be changed.
50. The device of claim 42, wherein said electrical circuit is configured to maintain a total count of the number of said firearm discharges.
51. The device of claim 42, wherein said electric circuit comprises a microcontroller.
52. The device of claim 51, wherein said electrical circuit further comprises a communication port, wherein information may be stored in and accessed from the microcontroller via the communication port.

53. The device of claim 42 wherein the removable mass is detached and free-floating.
54. The device of claim 42 wherein the inertia sensor comprises a substantially cylindrical housing and a spring.
55. A firearm in combination with a monitoring device, said firearm being susceptible to recoil in a first direction when discharged, said monitoring device comprising:
- a) an inertia sensor configured to generate at least one first signal in response to substantially each discharge of said firearm, said inertia sensor comprising a moveable mass resiliently biased in a direction substantially opposite said first direction; and
  - b) an electrical circuit configured to receive said at least one first signal generated by said inertia sensor and generate a second signal indicative of the number of said firearm discharges.
56. The combination of claim 55, wherein said firearm includes a bore through which a round of ammunition is discharged, and the movement of said mass is generally confined to movement along a straight line generally parallel to said bore.
57. The combination of claim 55, wherein said electrical circuit is configured to count down by one in response to each said firearm discharge, beginning from a predetermined number.
58. The combination of claim 57, wherein said predetermined number can be changed.
59. The combination of claim 55, wherein said electrical circuit is configured to maintain a total count of the number of said firearm discharges.
60. The combination of claim 55, wherein said electric circuit comprises a microcontroller.

61. The combination of claim 60, wherein said electrical circuit further comprises a communication port, wherein information may be stored in and accessed from the microcontroller via the communication port.

62. The combination of claim 55, wherein the movable mass is detached and free-floating.

63. A firearm monitoring device for use with a firearm, said firearm being susceptible to recoil in a first direction when discharged, comprising:

- a) an inertia switch configured to generate at least one first signal in response to substantially each discharge of said firearm; and
- b) an electrical circuit configured to receive said at least one first signal generated by said inertia switch and generate a second signal indicative of the number of firearm discharges, said electrical circuit configured to ignore any signals generated by said inertia switch within a predetermined time period following the generation of an initial one of a series of said first signals.

64. The device of claim 63, wherein said inertia switch comprises a moveable mass resiliently biased in a direction substantially opposite said first direction.

65. The device of claim 63, wherein said inertia sensor is an accelerometer.

66. The device of claim 63 in combination with said firearm.

67. A device for counting impulses, each of said impulses being in a first direction, said device comprising:

- a) an inertia sensor comprising a moveable mass subjected to resilient bias in a direction substantially opposite said first direction, said sensor being configured to generate at least one first signal in response to substantially each impulse as a result of movement of said mass in opposition to said resilient bias; and